

=> d his

(FILE 'HOME' ENTERED AT 15:25:20 ON 12 NOV 2007)  
FILE 'CA' ENTERED AT 15:25:41 ON 12 NOV 2007  
L1 13119 S FRET OR (FORSTER OR FLUORESC? OR RADIATIONLESS) (3A) (ENERGY (2A)  
TRANSFER? OR DONOR)  
L2 6424 S (INHIBIT? OR ACCEPTOR OR QUENCH?) (4A) (COLOR? OR NONFLUORESC? OR  
NON FLUORESC?)  
L3 59 S L1 AND L2  
L4 609 S (INDICATOR OR ACCEPTOR OR DYE) (4A) FLUORESC? (6A) (IMPROV? OR  
ADVANTAG? OR COMPAR?)  
L5 40 S L1 AND L4  
L6 98 S L3,L5  
L7 48 S L6 AND PY<2003  
L8 13 S L6 NOT L7 AND PY<2005  
FILE 'BIOSIS' ENTERED AT 15:49:48 ON 12 NOV 2007  
L9 20 S L7  
FILE 'MEDLINE' ENTERED AT 15:50:10 ON 12 NOV 2007  
L10 14 S L7  
FILE 'CA, BIOSIS, MEDLINE' ENTERED AT 15:50:48 ON 12 NOV 2007  
L11 64 DUP REM L7 L8 L9 L10 (31 DUPLICATES REMOVED)

=> d l11 bib,ab,kwic 1-64

L11 ANSWER 22 OF 64 CA COPYRIGHT 2007 ACS on STN  
AN 135:14815 CA  
TI Wavelength-shifting molecular beacons  
AU Tyagi, Anjay; Marras, Salvatore A. E.; Kramer, Fred Russell  
CS Department of Molecular Genetics, Public Health Research Institute, New  
York, NY, 10016, USA  
SO Nature Biotechnology (2000), 18(11), 1191-1196  
AB The authors describe wavelength-shifting mol. beacons, which are nucleic  
acid hybridization probes that fluoresce in a variety of different  
colors, yet are excited by a common monochromatic light source. The  
twin functions of absorption of energy from the excitation light and  
emission of that energy in the form of fluorescent light are assigned to  
two sep. fluorophores in the same probe. These probes contain a  
harvester fluorophore that absorbs strongly in the wavelength range of  
the monochromatic light source, an emitter fluorophore of the desired  
emission **color**, and a **nonfluorescent quencher**. In the absence of  
complementary nucleic acid targets, the probes are dark, whereas in the  
presence of targets, they fluoresce-not in the emission range of the  
harvester fluorophore that absorbs the light, but rather in the emission  
range of the emitter fluorophore. This shift in emission spectrum is  
due to the transfer of the absorbed energy from the harvester  
fluorophore to the emitter fluorophore by **fluorescence resonance energy  
transfer**, and it only takes place in probes that are bound to targets.  
Wavelength-shifting mol. beacons are substantially brighter than  
conventional mol. beacons that contain a fluorophore that cannot  
efficiently absorb energy from the available monochromatic light source.  
The authors describe the spectral characteristics of wavelength-shifting  
mol. beacons, and we demonstrate how their use improves and simplifies  
multiplex genetic analyses.

L11 ANSWER 44 OF 64 CA COPYRIGHT 2007 ACS on STN

AN 119:242929 CA

TI Polynucleotides conjugated with chromophores and fluorophores for  
determination of nucleic acid

IN Heller, Michael J.

PA Nanotronics, Inc., USA

SO PCT Int. Appl., 83 pp.

PI WO 9309128 A1 19930513 WO 1992-US9827 19921106  
US 5565322 A 19961015 US 1994-232233 19940505

PRAI US 1991-790262 A2 19911107

AB A method for detn. of a nucleic acid of interest with a photonic energy  
transfer system using a polynucleotide labeled with  $\geq 2$  (non)**fluorescing**  
**donor** chromophores at a donor-donor transfer distance and a fluorescing  
acceptor chromophore at a donor-acceptor distance. Alternatively, the  
fluorescing acceptor chromophore is located on a different  
polynucleotide. The method comprises mixing of the (non)**fluorescing**  
**donors** and **fluorescing acceptor**-labeled polynucleotide, which contained  
a complementary sequence to the nucleic acid of interest, with a nucleic  
acid sample; hybridizing; exciting the **donor** (non)**fluorescing**  
chromophore; and detecting the presence of photonic energy transfer.

=> log y

STN INTERNATIONAL LOGOFF AT 15:51:48 ON 12 NOV 2007